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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,163	12/15/2003	John Kolbjoern Roedseth	DN2003204	4406
	7590 01/09/200 AR TIRE & RUBBEF	EXAMINER		
INTELLECTUAL PROPERTY DEPARTMENT 823			JOHNSTONE, ADRIENNE C	
AKRON, OH 44		ART UNIT	PAPER NUMBER	
	•		1733	
SHORTENED STATUTORY	PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MON	NTHS	01/09/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)				
Office Action Summary		10/736,163	ROEDSETH, JOHN KOLBJOERN				
		Examiner	Art Unit				
		Adrienne C. Johnstone	1733				
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence ac	ddress			
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of the may be available under the provisions of 37 CFR 1.1: SIX (6) MONTHS from the mailing date of this communication. O period for reply is specified above, the maximum statutory period vere to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from . cause the application to become ABANDONE	N. nely filed the mailing date of this of the control of the contr	•			
Status							
1) 🏻	Responsive to communication(s) filed on <u>06 De</u>	ecember 2006					
2a)□		action is non-final.					
3)□	<u>, </u>						
,—	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposit	on of Claims						
4) 🖂	Claim(s) <u>1,3-10,16 and 17</u> is/are pending in the	e application.					
	4a) Of the above claim(s) is/are withdrawn from consideration.						
	Claim(s) is/are allowed.						
·	☐ Claim(s) <u>1, 3-10, 16, and 17</u> is/are rejected.						
7)							
8)	Claim(s) are subject to restriction and/o	r election requirement.					
Applicat	ion Papers						
ا ارو	The specification is objected to by the Examine	r					
	•		Evaminer				
٠٠/	10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)[The oath or declaration is objected to by the Ex						
	ınder 35 U.S.C. § 119						
	•	priority under 35 LLS C & 110(a)	\ (d) or (f)	•			
	12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
۵),		s have been received					
•	 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 						
	3. Copies of the certified copies of the priority documents have been received in this National Stage						
	application from the International Bureau		o in uns Nauonai	Stage			
* 5	See the attached detailed Office action for a list	` '/'	ed.				
Attachmen	Ne)						
_	e of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) 🔲 Notic	e of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	ate				
	nation Disclosure Statement(s) (PTO/SB/08)	5) Notice of Informal P	atent Application				
гаре	r No(s)/Mail Date	6) [] Other:					

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 6, 2006 has been entered.

Claim Rejections - 35 USC § 103

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. Claims 1, 3-9, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the state of the art exemplified by Boileau (3,830,273), Gerard et al. (5,421,390), Gerard et al. (5,645,658), Hammond et al. (5,685,927), and European Patent Application 0 465 786 A1, in view of Palmer (1,293,528), Murray (2,691,335), French Patent 607.026, and Japanese Patent Application 5-229303 A taken with Japanese Patent Application 5-229302 A.

These references are combined for the same reasons as set forth in paragraph 4 of the Office action mailed September 7, 2006. Specifically, the only difference between the prior art tire and the claimed tire is the positioning of the circumferentially extending ring in rather than under the circumferentially extending groove, as evidenced by Boileau (embodiment of the sole figure), Gerard et al. '390 (embodiment of Figure 1), Gerard et al. '658(embodiment of Figure 1), Hammond et al. (embodiment of Figure 2), and European Patent Application 0 465 786 A1 (embodiments of Figures 1-6) for example; however, both of these positions for such circumferentially extending rings are well known alternatives in the art, as evidenced by Palmer (embodiments of Figures 1 and 5),

Murray (embodiments of Figures 1-7), French Patent 607.026 (embodiment of Figure 1, soft rubber D is optional, determined through oral translation), and Japanese Patent Application 5-229303 A (embodiment of the sole figure with translation) taken with Japanese Patent Application 5-229302 A (embodiment of Figure 2 with abstract) for example. It would therefore have been obvious to one of ordinary skill in the art to provide such well known alternative positioning of the circumferentially extending ring in rather than under the circumferentially extending groove in the above prior art tire. As to claim 3, Gerard et al. '390 discloses an exemplary groove depth of 24 mm in a tire having a section height of 106 mm (23% of the tire section height). As to claims 6 and 7, the prior art tire may have a plurality of the circumferentially extending grooves having the circumferentially extending ring (Boileau col. 1 line 62 - col. 3 line 8; Gerard et al. '390 col. 1 line 33 - col. 3 line 11; Hammond et al. col. 2 line 41 - col. 3 line 40). Applicant argues that there is not a reasonable expectation of success in making the proposed combination, but this is not the case: contrary to applicant's arguments, one of ordinary skill in the art would not expect the positioning of the circumferentially extending ring in rather than under the circumferentially extending groove to interfere with the function of the above-noted prior art tire, and applicant has not yet provided evidence supporting the argument of a lack of reasonable expectation of success (MPEP 2143.02). Note that the newly added limitation of the circumferentially extending ring being "separately manufactured" is a process limitation which does not require any structure in the claimed tire other than what is already present in the combination proposed by the examiner (applicant is not yet claiming that the ring is not bonded to the underlying groove surface, which may make the argument persuasive but may not be supported by the original disclosure in this application). For example, in Boileau the purpose of the circumferentially extending ring 7 is to reinforce the connection 6, which it will do whether in or under the groove formed by the connection 6 without significantly changing

tire properties as long as it remains bonded to the underlying groove surface. As to claim 17, see the reinforcement wire 7 in the Figure 1 embodiment of Gerard et al. '390 and the reinforcement ring 7 in the Figure 1 embodiment of Gerard et al. '658. As to applicant's argument with respect to French Patent 607.026, see p. 2 lines 10-14: the space between elements A and B will be capable of including the soft rubber D and in other respects the space forms a large anti-skid groove.

Applicant's new assembly language does not exclude the ring being bonded to the underlying groove surface, contrary to applicant's arguments.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the state of the art exemplified by Boileau (3,830,273), Gerard et al. (5,421,390), Gerard et al. (5,645,658), Hammond et al. (5,685,927), and European Patent Application 0 465 786 A1, in view of Palmer (1,293,528), Murray (2,691,335), French Patent 607.026, and Japanese Patent Application 5-229303 A taken with Japanese Patent Application 5-229302 A as applied to claims 1, 3-9, and 17 above, and further in view of Japanese Patent Application 8-318715 A and German Utility Model DE 296 07 231 U1.

These references are combined for the same reasons as set forth in paragraph 5 of the Office action mailed September 7, 2006. Specifically, it is well known to provide reflective or fluorescent material in tread grooves in order to improve safety, as evidenced by Japanese Patent Application 8-318715 A (abstract, figures) and German Utility Model DE 296 07 231 U1 (abstract, figures) for example; it would therefore have been obvious to one of ordinary skill in the art to provide the circumferentially extending rings in the circumferentially extending grooves of the above tire with such well known reflective or fluorescent material in order to improve safety.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the state of the art exemplified by Boileau (3,830,273), Gerard et al. (5,421,390), Gerard et al. (5,645,658), Hammond et al. (5,685,927), and European Patent Application 0 465 786 A1, in view of Palmer (1,293,528),

Murray (2,691,335), French Patent 607.026, and Japanese Patent Application 5-229303 A taken with Japanese Patent Application 5-229302 A as applied to claims 1, 3-9, and 17 above, and further in view of Published PCT Application 95/18022 A1 or, alternatively, further in view of Japanese Patent Application 2003-335109 A.

These references are combined for the same reasons as set forth in paragraph 6 of the Office action mailed September 7, 2006. Specifically, PCT '022 teaches to provide the outer surface of rings inside tread grooves with a grooving pattern in order to inhibit water from collecting inside the grooves and therefore inhibit hydroplaning by promoting water flow (description p. 5 lines 11-24, p. 16 lines 1-3, and p. 22 Example 1) and JP '109 teaches to provide the outer surface of rings inside tread grooves with a grooving pattern in order to reduce noise generation (abstract, figures). It would therefore have been obvious to one of ordinary skill in the art to provide the outer surface of rings inside tread grooves with a grooving pattern in order to inhibit water from collecting inside the grooves and therefore inhibit hydroplaning by promoting water flow or, alternatively, in order to reduce noise generation.

Response to Arguments

6. In response to applicant's argument that each of the secondary references is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the secondary references are all directed to pneumatic tires and are all showing alternative ways of providing a circumferentially extending ring in or under a circumferentially extending groove.

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Allowable Subject Matter

Favorable consideration would be given to an amendment changing claim 1 such that in line 2 "a circumferentially extending ring" is changed to — a cured circumferentially extending ring — and in line 15 "separately manufactured" is changed to — manufactured and cured separately — and changing the specification paragraph 0041 such that in line 1 "manufactured" is changed to — manufactured and cured — (supported later in paragraph 0041 by elastomer matrix vulcanized in completed ring before application in the tire groove): applicant's arguments concerning a lack of a reasonable expectation of success in the combination proposed by the examiner would then be persuasive because an already cured ring would not be bonded to the underlying groove surface of the already cured tire (see paragraph 3 above).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrienne C. Johnstone whose telephone number is (571) 272-1218. The examiner can normally be reached on Monday-Friday, 10:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrienne C. Johnstone

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Primary Examiner Art Unit 1733

Adrienne Johnstone

January 4, 2007